

INTERNATIONAL STANDARD

ISO/IEC 10164-21

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Information technology — Open Systems Interconnection — Systems Management: Command sequencer for Systems Management

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Gestion-systèmes: Séquenceur de commande pour la
gestion-systèmes*



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 10164-21 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 33, *Distributed application services*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.753.

ISO/IEC 10164 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Systems Management*:

- Part 1: *Object management function*
- Part 2: *State management function*
- Part 3: *Attributes for representing relationships*
- Part 4: *Alarm reporting function*
- Part 5: *Event report management function*
- Part 6: *Log control function*
- Part 7: *Security alarm reporting function*
- Part 8: *Security audit trail function*
- Part 9: *Objects and attributes for access control*
- Part 10: *Usage metering function for accounting purposes*
- Part 11: *Metric objects and attributes*
- Part 12: *Test management function*
- Part 13: *Summarization function*
- Part 14: *Confidence and diagnostic test categories*
- Part 15: *Scheduling function*
- Part 16: *Management knowledge management function*
- Part 17: *Change over function*
- Part 18: *Software management function*
- Part 19: *Management domain and management policy management functions*
- Part 20: *Time management function*
- Part 21: *Command sequencer for Systems Management*
- Part 22: *Response time monitoring function*

Annexes A, B, D and F to H form an integral part of this part of ISO/IEC 10164. Annexes C and E are for information only.

INTERNATIONAL STANDARD**ITU-T RECOMMENDATION****INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: COMMAND SEQUENCER
FOR SYSTEMS MANAGEMENT****1 Scope**

This Recommendation | International Standard defines a Systems Management Function which may be used by an application process in a centralized or decentralized management environment to interact for the purpose of systems management, as defined by CCITT Rec. X.700 | ISO/IEC 7498-4. This Recommendation | International Standard defines the Command Sequencer which consists of generic definitions, services and functional units. This function is positioned in the application layer of ITU-T Rec. X.200 | ISO/IEC 7498-1 and is defined according to the model provided by ISO 9545. The role of systems management functions is described by ITU Rec. X.701 | ISO/IEC 10040.

This Recommendation | International Standard:

- establishes user requirements for the Command Sequencer;
- establishes models that relate the services provided by the function to user requirements;
- defines the services provided by the function;
- specifies the protocol that is necessary in order to provide the services;
- defines the relationship between the services and SMI operations and notifications;
- defines relationships with other systems management functions;
- specifies conformance requirements;
- defines a scripting language for use in the command sequencer environment.

This Recommendation | International Standard does not:

- define the nature of any implementation intended to provide the Command Sequencer;
- specify the manner in which management is accomplished by the use of the Command Sequencer;
- define the nature of any instructions which result in the use of the Command Sequencer;
- specify the services necessary for the establishment, normal, abnormal release of management associations.

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*.
- ITU-T Recommendation X.210 (1993) | ISO/IEC 10731:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: Conventions for the definition of OSI services*.

- CCITT Recommendation X.701 (1992) | ISO/IEC 10040:1992, *Information technology – Open Systems Interconnection – Systems management overview.*
- ITU-T Recommendation X.710 (1997) | ISO/IEC 9595:1998, *Information technology – Open Systems Interconnection – Common management information service.*
- ITU-T Recommendation X.711 (1997) | ISO/IEC 9596-1:1998, *Information technology – Open Systems Interconnection – Common management information protocol: Specification.*
- CCITT Recommendation X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information.*
- CCITT Recommendation X.722 (1992) | ISO/IEC 10165-4:1992, *Information technology – Open Systems Interconnection – Structure of management information: Guidelines for the definition of managed objects.*
- ITU-T Recommendation X.724 (1996) | ISO/IEC 10165-6:1997, *Information technology – Open Systems Interconnection – Structure of management information: Requirements and guidelines for implementation conformance statement proformas associated with OSI management.*
- ITU-T Recommendation X.725 (1995) | ISO/IEC 10165-7:1996, *Information technology – Open Systems Interconnection – Structure of management information: General relationship model.*
- CCITT Recommendation X.730 (1992) | ISO/IEC 10164-1:1993, *Information technology – Open Systems Interconnection – Systems management: Object management function.*
- CCITT Recommendation X.731 (1992) | ISO/IEC 10164-2:1992, *Information technology – Open Systems Interconnection – Systems management: State management function.*
- CCITT Recommendation X.733 (1992) | ISO/IEC 10164-4:1992, *Information technology – Open Systems Interconnection – Systems management: Alarm reporting function.*
- CCITT Recommendation X.734 (1992) | ISO/IEC 10164-5:1993, *Information technology – Open Systems Interconnection – Systems management: Event report management function.*
- CCITT Recommendation X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology – Open Systems Interconnection – Systems management: Log control function.*
- ITU-T Recommendation X.739 (1993) | ISO/IEC 10164-11:1994, *Information technology – Open Systems Interconnection – Systems management: Metric objects and attributes.*
- ITU-T Recommendation X.741 (1995) | ISO/IEC 10164-9:1995, *Information technology – Open Systems Interconnection – Systems management: Objects and attributes for access control.*
- ITU-T Recommendation X.746 (1995) | ISO/IEC 10164-15:1995, *Information technology – Open Systems Interconnection – Systems management: Scheduling function.*

2.2 Paired Recommendations | International Standards equivalent in technical content

- CCITT Recommendation X.209 (1988), *Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1).*
ISO/IEC 8825:1990, *Information technology – Open Systems Interconnection – Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*
- ITU-T Recommendation X.291 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Abstract test suite specification.*
ISO/IEC 9646-2:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstract Test Suite specification.*
- ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statement.*
ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements..*
- CCITT Recommendation X.700 (1992), *Management framework for Open Systems Interconnection (OSI) for CCITT Applications.*
ISO/IEC 7498-4:1989, *Information processing systems – Open Systems Interconnection – Basic Reference Model – Part 4: Management framework.*